

135 FERC ¶ 62,055
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

CRD Hydroelectric LLC, Iowa

Project No. 12576-004

ORDER ISSUING ORIGINAL MAJOR LICENSE

(April 18, 2011)

INTRODUCTION

1. On February 24, 2009, CRD Hydroelectric LLC (CRD) filed, pursuant to Part I of the Federal Power Act (FPA),¹ an application for an original license to construct, operate and maintain its proposed Red Rock Hydroelectric Project No. 12576. The 36.39-megawatt (MW) project will be connected to the U.S. Army Corps of Engineers (Corps) Red Rock Dam, which is located on the Des Moines River in Marion County, Iowa. The project will occupy about 8.3 acres of federal land under the jurisdiction of the Corps.²

BACKGROUND

2. The Commission published public notice of the application on May 27, 2009, setting July 27, 2009, as the deadline for filing protests and motions to intervene. No protests or motions to intervene were filed.

3. On January 15, 2010, the Commission issued public notice that the application was ready for environmental analysis and soliciting comments, recommendations, terms and conditions, and prescriptions. The U.S. Department of the Interior (Interior), the Iowa Department of Natural Resources (Iowa DNR), the Corps, and Mr. Terry Butler filed comments.³

¹ 16 U.S.C. §§ 791a - 825r (2006).

² Because the project would be located at the Corps' Red Rock Dam and would occupy lands of the United States, section 23(b)(1) of the FPA, 16 U.S.C. § 817(1) (2006), requires that it be licensed.

³ Mr. Butler requested clarification on the exact transmission line route in response to CRD's amended proposal to route the project's transmission line 4.5 miles along public rights-of-way to a substation at Pella, Iowa rather than 8 miles along public rights-of-way to a substation at Knoxville, Iowa. CRD notified adjacent landowners along the

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4. An Environmental Assessment (EA) was prepared by Commission staff and issued on December 23, 2010. The U.S. Fish and Wildlife Service (FWS) filed comments and recommendations on the EA.

5. The comments and recommendations have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

A. Existing Corps Facilities

6. The existing Red Rock Dam, a federal facility and not part of this license, consists of a 110-foot-high by 6,260-foot-long earth-fill dam with a 241-foot-long gated ogee spillway equipped with five 45-foot-high tainter gates. The dam forms a 15,253-acre reservoir at a normal "conservation pool" water surface elevation of 742.0 feet National Geodetic Vertical Datum of 1929 (NGVD).⁴

B. Current Dam Operation

7. The Corps operates the Red Rock Dam for flood control and recreation purposes, providing a daily discharge based on stream flow and reservoir conditions. The Corps maintains the reservoir at a pool elevation of 742 feet NGVD under normal conditions and 780 feet NGVD under flood control conditions. At the request of the Iowa DNR, the normal pool elevation may be gradually raised as much as two feet to an elevation of 744 feet NGVD during the period of September 15 to December 15 each year to enhance the waterfowl food supply along the reservoir shoreline. The Corps also maintains a minimum flow discharge of 300 cubic feet per second (cfs) into the Des Moines River below the dam to maintain downstream water quality.

C. Hydropower Project Facilities

8. The Red Rock Project will include the following facilities: a 127-foot-long by 19-foot-wide intake structure located on the upstream side of the existing Corps spillway; three 19-foot-diameter, 211-foot-long penstocks passing through the left side of the

new route by letter dated July 9, 2010, and filed its amended proposal on July 17, 2010. Section 2.2.1 of the EA describes the exact route of the transmission line.

⁴ The conservation pool is the reservoir volume at the normal operating pool elevation of 742 feet NGVD. During flooding conditions, additional water is stored in the reservoir above the conservation pool to minimize downstream flooding. The reservoir volume above the conservation pool is known as the flood control pool.

existing spillway; a 59-foot-long by 132-foot-wide powerhouse located directly downstream of the existing spillway that will house three new 12.13-MW generators with vertical Kaplan turbines and have a total installed capacity of 36.39 MW; a 125-foot-long tailrace; trashracks with an associated cleaning system; aeration systems installed on the project turbines; a 450-foot-long main access road connecting the powerhouse to County Road 216th Place; a 150-foot-long secondary access road connecting the powerhouse's crane pad to the main access road; a 4.5-mile-long, 69-kilovolt (kV) transmission line parts of which will be buried (a total of about 0.8 mile or 4,200 feet) and the remainder of which will be overhead; and appurtenant facilities.

9. CRD will construct a new fishing access facility on the left (north) bank of the tailrace, downstream of the powerhouse.

D. Project Boundary

10. The project boundary encloses the trash racks, penstocks, powerhouse, tailrace, access roads, crane and pad, and transmission line corridor. The transmission line will be located within an existing, publically-owned right-of-way that currently possesses electrical distribution poles and a distribution line owned by the Pella Electric Cooperative; the right-of-way follows Highway T-15. The above-ground segments of the project's transmission line will be approximately 3.7 miles long and will follow the alignment and route of the existing distribution line. The underground portions of the transmission line will occupy the Corps' lands located adjacent to the Red Rock Dam as well as Pella Municipal Airport lands located near Fifield, Iowa. The intake structure, penstocks, powerhouse, tailrace, and the first 3,200 feet of the project's primary transmission line will collectively occupy about 8.3 acres of the Corps' lands.

E. Proposed Project Operation

11. CRD proposes to manually operate the project using the discharge flows released by the Corps from the Red Rock Dam. The flows released by the Corps will not be altered with respect to the flow amount and timing of release (i.e., the project will operate in a run-of-release mode). The discharge flow rates are established daily by the Corps and are based on stream flow and reservoir conditions. Discharge flows resulting from the operation of the powerhouse will be released into the new tailrace located approximately 200 feet downstream of the Red Rock Dam. Under high flow conditions, where the Corps' daily designated discharge flows are greater than the maximum hydraulic capacity of the project turbines (approximately 8,900 cfs), the excess flows will be discharged via the Corps' low-flow conduits or Tainter gates.⁵ Under low flow conditions, where the daily designated discharge flows are less than the operating range

⁵ See License Application, Exhibit B at B-1 and B-2.

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of a single project turbine (approximately 300 cfs), flows will pass through the Corps' conduits in the dam and no generation will occur at the project.

F. Proposed Measures

12. In addition to the proposed operations described above, CRD proposes to: (1) develop a water quality protection and monitoring plan to ensure that project discharges are consistent with state water quality standards for dissolved oxygen (DO), water temperature, pH, conductivity, and total gas pressure (TGP); (2) construct a new fishing access facility on the left (north) bank of the tailrace, downstream of the powerhouse; (3) implement an erosion and sediment control plan that includes measures to minimize erosion and sediment runoff prior to and during construction of the intakes, penstocks, powerhouse, and tailrace; (4) maintain seeded areas and silt fences until vegetation cover is established following construction; (5) minimize the amount of vegetation cleared during project construction to only what is necessary to establish adequate spacing and clearance for access and safety to the transmission line; and (6) follow U.S. Natural Resource Conservation Service (NRCS) landowner guidelines to ensure that any land development does not affect potential Indiana bat habitat.

SUMMARY OF LICENSE REQUIREMENTS

13. As summarized below, this license authorizes 36.39 MW of renewable energy and requires a number of measures to protect or enhance water quality, fish and aquatic resources, wildlife, recreation, and cultural resources at the project.

14. To reduce erosion and sedimentation during project construction, the license requires an erosion and sediment control plan with provisions to re-vegetate disturbed areas after the completion of construction.

15. To protect water quality and fish and aquatic resources during project operation, the license requires a water quality protection and monitoring plan and run-of-release operation.

16. To protect wildlife in the project area during project construction, operation, and maintenance, the license requires implementation of avian protection measures for the overhead portions of the project's transmission line and Indiana bat protection measures within the transmission line corridor.

17. To enhance recreational opportunities in the project area, the license requires the construction, operation, and maintenance of a tailwater fishing access area.

18. To protect cultural resources, the license requires CRD to consult with the Corps and Iowa State Historic Preservation Office (Iowa SHPO) prior to starting any land-clearing or land-disturbing activities within the project boundary, other than those

specifically authorized by the license, and stop all land-clearing and land-disturbing activities (if any) and notify the Iowa SHPO if previously unidentified archaeological or historic resources are discovered during project construction, operation, or maintenance, or other project-related activities. The license also requires the development and implementation of an historic properties management plan (HPMP) if any discovered archaeological or historic resources are determined eligible for the National Register of Historic Places (National Register) and could be adversely affected by project construction, operation, or maintenance, or other project-related activities.

WATER QUALITY CERTIFICATION

19. Under section 401(a)(1) of the Clean Water Act (CWA),⁶ the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency either has issued water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.⁷

20. CRD requested water quality certification from the Iowa DNR for this project on November 13, 2008. Iowa DNR received this request on November 14, 2008, and did not act on the application within one year. Therefore, certification is deemed waived.

COASTAL ZONE MANAGEMENT ACT

21. Under section 307(c)(3)(A) of the Coastal Management Zone Act (CZMA),⁸ the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of the receipt of the applicant's certification. The state of Iowa does not have a Coastal Management Program. Therefore, CZMA consistency certification is not required for the Red Rock Project.

⁶ 33 U.S.C. § 1341(a)(1) (2006).

⁷ 33 U.S.C. § 1341(d) (2006).

⁸ 16 U.S.C. §1456(c)(3)(A) (2006).

SECTION 18 FISHWAY PRESCRIPTION

22. Section 18 of the FPA⁹ provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. No fishway prescriptions or reservations of authority were filed under section 18 of the FPA.

THREATENED AND ENDANGERED SPECIES

23. Section 7(a)(2) of the Endangered Species Act of 1973¹⁰ requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.

24. There is one federally listed species with the potential to occur in the project area. FWS documented the presence of the federally listed “endangered” Indiana bat in Marion County, Iowa.¹¹ Although unlikely, potential Indiana bat habitat could be affected by transmission line construction and maintenance. In the EA,¹² staff determined that with its recommended Indiana bat protection measures, licensing the Red Rock Project would not be likely to adversely affect the bat or its habitat.¹³ These measures include conducting tree trimming outside of the Indiana bat maternity season (April 1 to September 30) if suitable trees and habitat are present, limiting tree trimming in establishing clearance distances for the proposed transmission line, and developing and implementing an Indiana Bat Protection Plan if Indiana bat habitat is discovered prior to the start of construction.

25. The FWS concurred with this finding by letter filed January 24, 2011. Article 407 requires CRD to implement staff’s recommended protection measures.

⁹ 16 U.S.C. § 811 (2006).

¹⁰ 16 U.S.C. §1536(a) (2006).

¹¹ *See* EA at 34.

¹² *See* EA at 56.

¹³ *See* EA at 7.

NATIONAL HISTORIC PRESERVATION ACT

26. Under section 106 of the National Historic Preservation Act (NHPA)¹⁴ and its implementing regulations,¹⁵ federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the SHPO to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

27. In a letter filed on September 13, 2010, the Iowa SHPO stated that no historic properties would be adversely affected by the project. In the EA,¹⁶ staff concluded that while there are no known surface or sub-surface archaeological resources, there is a possibility that such resources may be discovered as a result of project construction, operation, or maintenance, or other project-related activities. To ensure the proper treatment of any archaeological or historic resources that may be discovered, Article 408 requires the licensee to stop all land-clearing and land-disturbing activities (if any) and notify and consult with the Iowa SHPO of any such discoveries. If a discovered archaeological or historic resource is a historic property and would be adversely affected, Article 408 requires the licensee to develop an HPMP for Commission approval.

RECOMMENDATION OF STATE AND FEDERAL FISH AND WILDLIFE AGENCIES PURSUANT TO SECTION 10(j) OF THE FPA

28. Section 10(j) of the FPA¹⁷ requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,¹⁸ to “adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)” affected by the project.

29. Neither the FWS nor Iowa DNR filed 10(j) recommendations for the Red Rock Project.

¹⁴ 16 U.S.C. § 470 et seq (2006).

¹⁵ 36 C.F.R. Part 800 (2010).

¹⁶ See EA at 59.

¹⁷ 16 U.S.C. § 803(j)(1) (2006).

¹⁸ 16 U.S.C. § 661 et seq (2006).

SECTION 10(a) OF THE FPA

30. Section 10(a) of the FPA¹⁹ requires that any project for which the Commission issues a license shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

A. Fishery Resource Mitigation

31. The FWS recommends that CRD provide mitigation for entrained fish noting that the current sport fishery downstream of the dam is maintained by the downstream passage of game fish through the Corps' sluiceways in the dam, and that diversion of flow away from the existing sluiceways and to the project's powerhouse would prevent downstream passage of fish needed to replenish and sustain the downstream sport fishery. FWS is also concerned that juvenile and young-of-the-year fish swimming in the vicinity of the project's intake will be at risk of entrainment.

32. In the EA, Commission staff concluded that although there would be reduced downstream fish passage due to the diversion of flows to the powerhouse intake and associated trashrack with 3.75-inch bar spacing, nearly all young-of-the-year and some juvenile game fish species would still be able to safely pass through the trashrack and into the tailrace waters via the powerhouse to sustain the downstream sport fishery.²⁰ In addition, about 50 percent of the time during the period of April through August when most game fish movements occur, flows exceeding the maximum hydraulic capacity of the powerhouse would continue to pass through the existing sluiceways, thereby providing downstream passage for all fish life stages, including adults that would be too large to pass downstream through the project's trashracks.

33. Staff concluded that survival of fish through the project's powerhouse would be about 95 percent for small and moderate-sized fish and 88 percent for larger fish, and therefore, the low level of mortality (i.e., 5-12 percent) would likely have minimal effects on the project area fishery.²¹ FWS did not provide any specificity as to the type of mitigation it would like CRD to implement. However, because there would only be

¹⁹ 16 U.S.C. § 803(a)(1) (2006).

²⁰ See EA at 28-29.

²¹ See EA at 28.

minimal effects on the project area fishery due to entrainment and turbine mortality, providing entrainment mitigation of any type is not warranted. For this reason, the license does not require CRD to mitigate entrainment and turbine mortality effects on fisheries at the project.

34. On a related matter, FWS stated in its filing that the EA lacked the results of a study to support staff's conclusions regarding downstream fish passage and the related project effects on the tailrace fishery. However, as noted in the EA,²² staff reached its conclusions, in part, on published study reports regarding the swimming abilities and downstream migration behaviors of fish that were of the same species as that located in the Des Moines River at the project. It's not clear from FWS' filing what further study, including associated objectives and methodologies, it determined was necessary to reach the conclusions in the EA.

B. Erosion and Sediment Control Plan

35. To reduce runoff and soil erosion prior to, during, and after construction of the intake structure, powerhouse, and tailrace channel, CRD proposes to implement an Erosion and Sediment Control Plan. The plan, which CRD filed on September 28, 2009, contains CRD's proposed best management practices, such as installing a tracking pad²³ prior to construction; installing or implementing during construction dust control measures and silt fencing, sand bags, stabilizing material and rip rap along the riverbank, and seeding of disturbed surfaces; and after construction, maintaining silt fencing and seeded areas until vegetative cover is established.

36. The plan however does not contain any provisions for implementing erosion control measures during and after construction of the tailrace fishing access facility and the transmission line. In the EA,²⁴ staff recommended that CRD implement the Erosion and Soil Control Plan with additional erosion control measures to control erosion during the construction of the transmission line and tailrace fishing access facility, and continue implementing these measures after construction is complete until vegetative cover is established. The additional measures would reduce sediment runoff into project waters. Order Paragraph D requires implementation of CRD's proposed Erosion and Soil Control

²² See EA at 26-29.

²³ A tracking pad is a pad of crushed stone that will be located near the exit of the construction site. The purpose of a tracking pad is to reduce the dispersion of sediment from a construction site by reducing the amount of sediment on a construction vehicle's tires before it leaves the construction site.

²⁴ See EA at 57.

Plan, and Article 401 requires the additional erosion control measures recommended by staff.

C. Dissolved Oxygen Monitoring

37. In the EA, Commission staff concluded that project operation could cause lower dissolved oxygen (DO) concentrations in the Des Moines River downstream of the Corps' dam than currently occur, and that such lowered concentrations could adversely affect fish and other aquatic resources.²⁵ To protect fish and aquatic resources from potentially lowered DO concentrations, staff recommended development and implementation of a water quality protection and monitoring plan.²⁶ Article 402 requires staff's recommended water quality measure.

D. Run-of-Release Operations and Compliance Monitoring

38. In the EA, Commission staff recommended adoption of CRD's proposal to operate the project in a run-of-release mode, finding that such an operational mode would protect the Corps' operations at the dam and maintain existing downstream aquatic resources in the Des Moines River.²⁷ To demonstrate compliance with a run-of-release operating mode, Commission staff also recommended the development and implementation of an operations compliance monitoring plan.²⁸ Article 403 requires CRD to operate the project in a run-of-release operating mode, and Article 404 requires CRD to develop and implement an operations compliance monitoring plan.

E. Tailrace Fishing Access

39. Bank fishing is a popular activity at the Corps' existing formal tailrace bank fishing facility on the right (south) bank of the tailrace. Construction and operation of the project would cause a shift in flows away from the existing Corps' facilities to the left (north) bank where no formal bank fishing access facilities exist. To mitigate for this adverse effect, CRD proposes to construct and maintain a new fishing access facility on the left bank of the tailrace. Prior to designing the facility, CRD proposes to first study the discharge flow patterns of the tailrace area once project operation begins, and based

²⁵ See EA at 23 and 24.

²⁶ See EA at 55 and 56.

²⁷ See EA at 26 and 55.

²⁸ See EA at 56.

on the flow evaluation, determine the design and specific location of the facility that would provide an optimal fishing experience.

40. In the EA, staff recommended CRD's proposed facility, including the provision for a flow evaluation to inform the specific design and location, along with the additional provision to develop and implement a design and management plan for the facility.²⁹ The purpose of the design and management plan would be to specify how the discharge flows would be evaluated to determine the best location for the facility, provide for design drawings and a construction schedule to be filed for Commission approval, determine the operation and maintenance procedures for the facility, and determine how the design of the facility would consider the needs of the disabled. Article 405 includes these staff-recommended measures.

F. Avian Protection Plan

41. In the EA, staff concluded that avian species could collide with or be electrocuted by the project's transmission line and recommended that CRD report any adverse interactions between avian species and the transmission line to the FWS, and to design and make repairs to the transmission line and poles in accordance with the most current avian protection guidelines.³⁰ Article 406 requires CRD to develop and implement an Avian Protection Plan with provisions for the staff's recommended avian protection measures.

ADMINISTRATION PROVISIONS

A. Annual Charges

42. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA and use of a government dam. As noted, the Red Rock Project will occupy about 8.3 acres of federal land administered by the Corps. The Commission does not assess a land use charge for a licensee's use of federal lands adjoining or pertaining to federal dams or other structures.³¹ Rather, it assesses the charge on the use of the federal facilities.³²

²⁹ See EA at 58 and 59.

³⁰ See EA at 56 and 58.

³¹ See 18 C.F.R. § 11.2(a) (2010).

³² See 18 C.F.R. § 11.3 (2010).

B. Exhibit F and G Drawings

43. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 requires the filing of the approved exhibit F drawings.

44. The exhibit G drawings filed as part of the application for license do not conform to Commission regulations and are not approved because the exhibit drawings do not show the proposed transmission line and fishing access facility enclosed within the project boundary. Project boundaries designate the geographic extent of the lands, waters, works, and facilities that the licensee must hold the rights necessary to carry out the project purposes.³³ Article 203 requires the licensee to file revised exhibit G drawings showing the transmission line and fishing access facility enclosed within the project boundary.

C. Amortization Reserve

45. The Commission requires that for original licenses for major projects, non-municipal licensees must set up and maintain an amortization reserve account after the first 20 years of operation of the project under license. Article 204 requires the establishment of the account.

D. Headwater Benefits

46. Some projects directly benefit from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 205 requires the licensee to reimburse such entities for these benefits.

E. Use and Occupancy of Project Lands and Waters

47. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, Article 409 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

³³ See, e.g., 18 C.F.R. § 4.41(h)(2) (2007); and *Wisconsin Public Service Corporation*, 104 FERC ¶ 61,295 at P 16 (2003). A project boundary does not change property rights: title to lands within the boundary can be owned by someone other than the licensee, so long as the licensee holds necessary property interests and permits to carry out project purposes.

F. Review of Final Plans and Specifications

48. Article 301 requires the licensee to commence construction of the project works within two years from the issuance date of the license and complete construction of the project within five years from the issuance date of the license.

49. Article 302 requires the licensee to provide the Commission's Division of Dam Safety and Inspection Chicago Regional Office (D2SI-CRO) with final contract drawings and specifications—together with a supporting design report consistent with the Commission's engineering guidelines, as well as a plan for a quality control and inspection program, a temporary emergency action plan, and a soil erosion and sediment control plan.

50. Article 303 requires the licensee to provide the Commission's D2SI-CRO with cofferdam construction drawings.

51. Where new construction or modifications to a project are involved, the Commission requires licensees to file revised drawings of project features as-built. Article 304 provides for the filing of these drawings.

G. Conditions for Project at Corps Dams

52. Pursuant to a 1981 Memorandum of Understanding between the Commission and the Department of the Army, seven special articles are included in licenses for hydroelectric projects to be developed at Corps facilities. The articles are incorporated in this license as Articles 306 through 312.

H. Project Financing

53. To ensure completion of project construction once begun, Article 305 requires the licensee to file for Commission approval at least 90 days before the start of construction a project financing plan that shows that the licensee has acquired the funds or commitment for funds necessary to construct the project in accordance with the license.

STATE AND FEDERAL COMPREHENSIVE PLANS

54. Section 10(a)(2)(A) of the FPA,³⁴ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.³⁵ Under

³⁴ 16 U.S.C. § 803(a)(2)(A) (2006).

³⁵ Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2010).

section 10(a)(2)(A), federal and state agencies filed nine comprehensive plans that address various resources in Iowa. Of these, the staff identified and reviewed two comprehensive plans that are relevant to this project.³⁶ No conflicts were found.

SAFE MANAGEMENT, OPERATION, AND MAINTENANCE OF THE PROJECT

55. Staff reviewed CRD's preliminary plans to build the project as described in the license application. Staff concludes that the project works will be safe when constructed, operated, and maintained in accordance with the Commission's standards and oversight and the provisions of this license.

NEED FOR POWER

56. To assess the need for power, we looked at the needs in the operating region in which the project is located. The project will be located in the Midwest Reliability Organization-U.S. sub-region (MRO-US) of the Midwest Reliability Organization of the North American Electric Reliability Corporation (NERC). NERC annually forecasts electrical supply and demand in the nation and the region for a 10-year period. According to NERC's 2009 forecast, the MRO-U.S. summer peak net internal demand is expected to increase at an average rate of 1.8 percent per year from 2009 through 2018. The project would have an installed capacity of 36.39 MW, and would generate an average of 158,000 megawatt-hours (MWh) annually of this demand. Staff concludes that the project's power and contribution to the region's diversified generation mix will help meet a need for power in the region.

PROJECT ECONOMICS

57. In determining whether to issue a license for a hydroelectric project, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,³⁷ the Commission uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

³⁶ The list of applicable plans can be found in section 5.5 of the EA for the project.

³⁷ 72 FERC ¶ 61,027 (1995).

58. In applying this analysis to the Red Rock Project, we have considered CRD's proposal and the project as licensed herein. As proposed by CRD, the levelized annual cost of operating the Red Rock Project is \$9,576,380, or \$60.61/MWh. The proposed project would generate an estimated average of 158,000 MWh of energy annually. When we multiply our estimate of average generation by the alternative power cost of \$33.67/MWh,³⁸ we get a total value of the project's power of \$5,319,860 in 2010 dollars. To determine whether the proposed project is currently economically beneficial, staff subtracts the project's cost from the value of the project's power.³⁹ Therefore, in the first year of operation, the project would cost \$4,256,520 or \$26.94/MWh more than the likely alternative cost of power.

59. As licensed herein, the levelized annual cost of operating the project would be about \$9,581,120, or \$60.97/MWh. Based on an estimated average annual generation of 158,000 MWh as licensed, the project would produce power valued at \$5,319,860 when multiplied by the \$33.67/MWh value of the project's power. Therefore, in the first year of operation, project power would cost \$4,261,260 or \$26.97/MWh more than the likely cost of alternative power.

60. In considering public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include their ability to help maintain the stability of a power system, such as by quickly adjusting power output to respond to rapid changes in system load, and to respond rapidly to a major utility system or regional blackout by providing a source of power to help restart fossil-fuel based generating stations and put them back on line.

61. Although our analysis shows that the project as licensed herein would cost more to operate than our estimated cost of alternative power, it is the applicant who must decide whether to accept this license and any financial risk that entails.

62. Although staff does not explicitly account for the effects inflation may have on the future cost of electricity, the fact that hydropower generation is relatively insensitive to inflation compared to fossil-fueled generators is an important economic consideration for power producers and the consumers they serve. This is one reason project economics is only one of the many public interest factors the Commission considers in determining whether or not, and under what conditions, to issue a license.

³⁸ The alternative power cost of \$33.67 per MWh is based on information obtained from the applicant.

³⁹ Details of staff's economic analysis for the project as licensed herein and for various alternatives are included in the EA issued December 23, 2010.

COMPREHENSIVE DEVELOPMENT

63. Section 4(e) and 10(a)(1) of the FPA⁴⁰ require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

64. The EA for the project contains background information, analysis of effects, and support for related license articles. We conclude based on the record of this proceeding, including the EA and the comments thereon, that licensing the Red Rock Project as described in this order would not constitute a major federal action significantly affecting the quality of the human environment. The project will be safe if operated and maintained in accordance with the requirements of this license.

65. Based on our independent review and evaluation of the Red Rock Project, recommendations from the resource agencies, and the no-action alternative, as documented in the EA, I have selected the proposed Red Rock Project, with the staff-recommended measures, and find that it is best adapted to a comprehensive plan for improving or developing the Des Moines River.

66. I selected this alternative because: (1) issuance of an original license will serve to provide a beneficial and dependable source of electrical energy; (2) the required environmental measures will protect and enhance fish and wildlife resources, water quality, recreational resources, and historic properties; and (3) the 36.39 MW of electric capacity available from this renewable resource may offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

LICENSE TERM

67. Section 6 of the FPA,⁴¹ provides that original licenses for hydropower projects shall be issued for a period not to exceed 50 years. It is Commission policy to issue a 50-

⁴⁰ 16 U.S.C. §§ 797(e) and 803(a)(1) (2006).

⁴¹ 16 U.S.C. § 799 (2006).

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year license for a project located at a federal dam.⁴² Accordingly, I will issue this license for a term of 50 years.

The Director orders:

(A) This license is issued to CRD Hydroelectric LLC (licensee) for a period of 50 years, effective the first day of the month in which this order is issued, to construct, operate and maintain the Red Rock Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in these lands, described in the project description and the project boundary discussion of this order.

(2) Project works consisting of: (a) a 127-foot-long by 19-foot-wide intake structure located on the upstream side of the existing Army Corps of Engineers' (Corps) Red Rock Dam spillway; (b) three 19-foot-diameter, 211-foot-long penstocks passing through the left side of the existing spillway; (c) a 59-foot-long by 132-foot-wide powerhouse located directly downstream of the existing spillway that will house three 12.13-megawatt (MW) generators with vertical Kaplan turbines and have a total installed capacity of 36.39 MW; (d) a 125-foot-long tailrace; (e) trashracks with an associated cleaning system; (f) aeration systems, which will be installed on the project turbines; (g) a 450-foot-long main access road connecting the powerhouse to County Road 216th Place and a 170-foot-long secondary access road connecting the powerhouse's crane pad to the main access road; (h) a 4.5-mile-long, 69-kilovolt (kV) transmission line parts of which will be buried (a total of about 0.8 mile or 4,200 feet) and the remainder of which will be overhead; and (i) appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of exhibits A and F shown below:

Exhibit A: The following sections of Exhibit A filed on July 15, 2010:

⁴² See *City of Danville, Virginia*, 58 FERC ¶ 61,318 at 62,020 (1992).

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Introduction section, page A-1; Section A.1 through A.6, pages A-1 through A-3; entitled "Project Description," describing the mechanical, electrical and transmission equipment within the application for the license.

Exhibit F: The following exhibit F drawings filed on February 24, 2009:

| Exhibit F Drawing | FERC No. 12576- | Description |
|-------------------|--------------------|-----------------------|
| Exhibit F-1 | 1 | Project Site Plan |
| Exhibit F-2 | 2 | Project Plan |
| Exhibit F-3 | 3 | Project Cross Section |
| Exhibit F-4 | 4 | Intake Plan |
| Exhibit F-5 | 5 | Powerhouse/ Tailrace |

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project, all portable property that may be employed in connection with the project, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The exhibits A and F described above are approved and made part of the license. The exhibit G drawings filed as part of the application for license do not conform to Commission regulations and are not approved.

(D) The Erosion and Sediment Control Plan filed by the licensee on September 28, 2009, is approved and made part of this license.

(E) This license is also subject to the articles set forth in Form L-2 (Oct. 1975), entitled, "Terms and Conditions of License for Unconstructed Major Project Affecting Lands of the United States" (see 54 FPC 1799 et seq.), as set forth in this order, including the following additional articles:

Article 201. Administrative Annual Charges. The licensee shall pay the United States annual charges, effective as of the date of commencement of project construction, and as determined in accordance with provisions of the Commission's regulations in effect from time to time, for the purposes of:

(1) reimbursing the United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 36.39 megawatts; and

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(2) recompensing the United States for the utilization of surplus water or water power from a government dam.

Article 202. Exhibit F Drawings. Within 45 days of the date of issuance of the license, the licensee shall file the approved exhibit F drawings in aperture card and electronic file formats.

(a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Project-Drawing Number (i.e., P-12576-#### through P-12576-####) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (i.e., F-1, etc.), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

Two of the sets of aperture cards shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections Chicago Regional Office.

(b) The licensee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections Chicago Regional Office. Exhibit F drawings must be identified as Critical Energy Infrastructure Information (CEII) material under 18 CFR § 388.113(c). Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-XXX-####, D-1, Description, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY - black & white raster file
FILE TYPE – Tagged Image File Format (TIFF), CCITT Group 4
RESOLUTION – 300 dpi desired (200 dpi min)
DRAWING SIZE FORMAT – 24" X 36" (min), 28" X 40" (max)
FILE SIZE – less than 1 MB desired

Article 203. Exhibit G Drawings. Within 90 days of the effective date of the license, the licensee shall file, for Commission approval, revised exhibit G drawings enclosing within the project boundary all principal project works necessary for operation and maintenance of the project, including the project's transmission line and the proposed tailrace fishing access facility required by Article 405. The exhibit G drawings must comply with sections 4.39 and 4.41 of the Commission's regulations.

Article 204. Amortization Reserve. Pursuant to section 10(d) of the Act, after the first 20 years of operation of the project under license, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. One-half of the project surplus earnings, if any, accumulated after the first 20 years of operations under the license, in excess of the specified rate of return per annum on the net investment, shall be set aside in a project amortization reserve account at the end of each fiscal year. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year after the first 20 years of operation under the license, the amount of that deficiency shall be deducted from the amount of any surplus earnings subsequently accumulated, until absorbed. One-half of the remaining surplus earnings, if any, cumulatively computed, shall be set aside in the project amortization reserve account. The amounts established in the project amortization reserve account shall be maintained until further order of the Commission.

The annual specified reasonable rate of return shall be the sum of the annual weighted costs of long-term debt, preferred stock, and common equity, as defined below. The annual weighted cost for each component of the reasonable rate of return is the product of its capital ratio and cost rate. The annual capital ratio for each component of the rate of return shall be calculated based on an average of 13 monthly balances of amounts properly includable in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rates for long-term debt and preferred stock shall be their respective weighted average costs for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10-year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 205. Headwater Benefits. If the licensee's project is directly benefited by the construction work of another licensee, a permittee, or of the United States of a storage reservoir or other headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed. The benefits will be assessed in accordance with Subpart B of the Commission's regulations, 18 C.F.R. § 11 (2011).

Article 301. Start of Construction. The licensee shall commence construction of the project works within two years from the issuance date of the license and shall complete construction of the project within five years from the issuance date of the license.

Article 302. Contract Plans and Specifications. At least 60 days prior to the start of any construction, the licensee shall submit one copy of its plans and specifications and supporting design document to the Commission's Division Dam Safety and Inspections

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(D2SI) – Chicago Regional Engineer, and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI). The submittal to the D2SI – Chicago Regional Engineer must also include as part of preconstruction requirements: a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and a Soil Erosion and Sediment Control Plan. The licensee may not begin construction until the D2SI – Chicago Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized the start of construction.

Article 303. *Cofferdam Construction Drawings and Deep Excavations.* Before starting construction, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspection's (D2SI) - Chicago Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, D2SI), of the approved cofferdam construction drawings and specifications and the letters of approval.

Article 304. *As-built Drawings.* Within 90 days of completion of all construction activities authorized by this license, the licensee shall file, for Commission approval, revised exhibits A, F, and G, as applicable, describing and showing those project facilities as-built. A courtesy copy shall be filed with the Commission's Division of Dam Safety and Inspections (D2SI) – Chicago Regional Engineer, the Director D2SI, and the Director, Division of Hydropower Administration and Compliance.

Article 305. *Project Financing Plan.* At least 90 days before starting construction, the licensee shall file with the Commission, for approval, three copies of a project financing plan. The plan must show that the licensee has acquired the funds, or commitment for funds, necessary to construct the project in accordance with this license. The licensee shall not start any project construction or ground-disturbing activities that are inseparably associated with the project, before the project financing plan is approved.

Article 306. *Facility Design and Construction.* The design and construction of those permanent and temporary facilities, including reservoir impounding cofferdams and deep excavations, that would be an integral part of, or that could affect the structural integrity or operation of the Government project shall be done in consultation with and subject to the review and approval of the Corps' District Engineer. The Corps' review of the cofferdams will be in addition to the licensee's review and approval of the final plans and shall in no way relieve the licensee of responsibility and liability regarding satisfactory performance of the cofferdams. Within 90 days from the issuance date of the license, the licensee shall furnish the Corps and the Commission's Division of Dam Safety and Inspections (D2SI) - Chicago Regional Engineer, a schedule for submission of

design documents and the plans and specifications for the project. If the schedule does not afford sufficient review and approval time, the licensee, upon request of the Corps, shall meet with the Corps and the Commission's staff to revise the schedule accordingly.

Article 307. Review of Contractor Designs. The licensee shall review and approve the design of contractor-designed cofferdams and deep excavations prior to the start of construction and shall ensure that construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the licensee shall file with the Director, Division of Dam Safety and Inspections (D2SI), the D2SI - Chicago Regional Engineer, and the Corps, one copy of the approved cofferdam construction drawings and specifications and a copy of the letter(s) of approval.

Article 308. Agreement with Corps. The licensee shall within 90 days from the issuance date of the license, enter into an agreement with the Corps to coordinate its plans for access to and site activities on lands and property administered by the Corps so that the authorized purposes, including operation of the Federal facilities, are protected. In general, the agreement shall not be redundant with the Commission's requirements contained in this license, shall identify the facility, and the study and construction activities, as applicable, and terms and conditions under which studies and construction will be conducted. The agreement shall be mainly composed of reasonable arrangements for access to the Corps site to conduct studies and construction activities, such access rights to be conditioned by the Corps as may be necessary to protect the federally authorized project purposes and operations. Should the licensee and the Corps fail to reach an access agreement, the licensee shall refer the matter to the Commission for resolution.

Article 309. Periodic and Continuous Inspections by the Corps. The construction, operation and maintenance of the project works that, in the judgment of the Corps may affect the structural integrity or operation of the Corps project shall be subject to periodic or continuous inspections by the Corps. Any construction, operation and maintenance deficiencies or difficulties detected by the Corps inspection shall be immediately reported to the Commission's Division of Dam Safety and Inspections (D2SI) – Chicago Regional Engineer. Upon review, the D2SI – Chicago Regional Engineer shall refer the matter to the licensee for appropriate action. In cases when construction, operation, or maintenance practices or deficiencies may create a situation posing imminent danger to the structural integrity and safety of the Corps project, the Corps inspector has the authority to stop construction or maintenance while awaiting the resolution of the problem. The licensee shall immediately inform the D2SI – Chicago Regional Engineer of the circumstances surrounding the cessation of construction, operation, or maintenance activities. The licensee shall not resume construction, operation, or maintenance activities until notified by the D2SI – Chicago Regional Engineer that the problem or situation has been resolved.

Article 310. Regulating (or Operating) Plan. The licensee shall, at least 60 days prior to start of construction, submit for approval an operating plan, describing (a) the designed mode of hydropower operation, (b) reservoir flow diversion and regulation requirements for operation of the Corps project during construction as established by the Corps, and (c) integration of the operation of the hydroelectric facility into the Corps' emergency action plan. In addition, the licensee, prior to start of power plant operation, shall enter into an operating Memorandum of Agreement (MOA) with the Corps describing the detailed operation of the power facilities acceptable to the Corps. The MOA shall specify any restrictions needed to protect the primary purposes of the Corps project for navigation, recreation, water quality, and flood control. The Commission's Division of Dam Safety and Inspections (D2SI) – Chicago Regional Engineer shall be invited to attend meetings regarding the agreement. The MOA shall be subject to revision by mutual consent of the Corps and licensee as experience is gained by actual project operation. Should the licensee and the Corps fail to reach an agreement, the matter will be referred to the Director, Office of Energy Projects for resolution. Copies of the regulating plan and signed MOA between the Corps and the licensee and any revision thereof shall be furnished to the Director, Office of Energy Projects, and the D2SI – Chicago Regional Engineer.

Article 311. No Claim. The licensee shall have no claim under this license against the United States arising from the effect of any changes made in the operation or reservoir levels of the Corps project.

Article 312. Corps' Written Approval. The licensee shall provide the Commission's Division of Dam Safety and Inspections (D2SI) – Chicago Regional Office two copies of all correspondence between the licensee and the Corps. The D2SI – Chicago Regional Engineer shall not authorize construction of any project work until the Corps' written approval of construction plans and specifications has been received by the Regional Engineer.

Article 401. Erosion and Sediment Control Plan. The Erosion and Sediment Control Plan approved by Ordering Paragraph D of this license shall be implemented with the following additions:

(1) during construction of the transmission line and tailrace fishing access facility, install silt fencing and/or haybale barriers around the areas of disturbance; and

(2) after construction of the transmission line and tailrace fishing access facility, reseed disturbed areas, maintain seeded areas until 80 percent of the vegetative cover is established, and maintain silt fencing until 80 percent of the vegetative cover is established.

The approved Erosion and Sediment Control Plan may not be amended without

prior Commission approval. The Commission reserves the right to require changes to the plan.

Article 402. Water Quality Protection and Monitoring Plan. At least 90 days before the start of any land-disturbing or land-clearing activities, the licensee shall file with the Commission, for approval, a Water Quality Protection and Monitoring Plan. The purpose of the plan is to ensure that Des Moines River flows, as measured immediately downstream of the project's tailrace, maintain a DO concentration of no less than 5.0 milligrams per liter (mg/L).

The monitoring plan shall include, but not necessarily be limited to, the following:

- (1) a provision for locating the project intake such that water withdrawals for project operations occur from the surface layer of the reservoir where higher DO concentrations are expected;
- (2) a provision for installing, operating, and maintaining aeration devices on the project's turbines to increase DO concentrations in the project's tailrace, when necessary, to maintain a DO concentration of no less than 5.0 mg/L;
- (3) a description of the methods, gages and equipment, maintenance and calibration procedures, and specific locations that will be used to continuously monitor DO and water temperatures immediately downstream of the project's tailrace;
- (4) a description of the protocols for annually reporting monitoring data to the U.S. Army Corps of Engineers (Corps), U.S. Fish and Wildlife Service (FWS), and Iowa Department of Natural Resources (Iowa DNR) and requesting comments;
- (5) a provision for filing an annual report of the monitoring results with the Commission that includes any recommendations for discontinuing annual monitoring, and any comments or recommendations received from the Corps, FWS, and Iowa DNR in response to the reported monitoring results; and
- (6) an implementation schedule.

The licensee shall prepare the plan after consultation with the Corps, FWS, and Iowa DNR. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons based on project-specific information.

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The Commission reserves the right to require changes to the plan. Project operation shall not begin until the licensee is notified by the Commission that the plan and schedule are approved. Upon Commission approval, the licensee shall implement the plan and schedule, including any changes required by the Commission. The project intake and aeration devices, built in accordance with this plan, shall be shown on the as-built drawings filed pursuant to Article 303 of this license.

If the results of monitoring indicate that operational changes are necessary to protect water quality, the Commission may direct the licensee to modify project operations.

Article 403. Project Operation. The licensee shall operate the project in a run-of-release mode meaning that the licensee shall not deviate from the flow constraints, including flow releases, established by the U.S. Army Corps of Engineers (Corps) at the dam. If operation of the project causes a deviation from the Corps' flow constraints, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 404. Operation Compliance Monitoring Plan. At least 90 days before the start of project operation, the licensee shall file with the Commission, for approval, an Operations Compliance Monitoring Plan that describes how the licensee will comply with the operational requirements of this license.

The plan shall include, but not necessarily be limited to, the following:

- (1) provisions to monitor compliance with the run-of-release mode of operation required by Article 403;
- (2) a description of the exact location of all gages and/or measuring devices, or techniques that would be used to monitor compliance; the procedures for maintaining and calibrating monitoring equipment; the frequency of recording for each gage and/or measuring device; the protocols or methods to be used for reporting the monitoring data to the Commission; and a monitoring schedule;
- (3) a provision to maintain a log of project operations; and
- (4) an implementation schedule.

The licensee shall prepare the plan after consultation with the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and the Iowa Department of Natural Resources. The licensee shall include with the plan, documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies'

comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Project operation shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 405. Fishing Access Design and Management Plan. At least 90 days before the start of any land-disturbing or land-clearing activities, the licensee shall file for Commission approval, a Fishing Access Design and Management Plan. The plan shall include, but not be limited to, the following: (1) the methodology used to determine the optimum location of the fishing access facility along the left (north) tailrace bank; (2) a schedule to file conceptual design drawings showing the type and location of the fishing access facility; (3) provisions to construct, operate, and maintain the fishing access facility over the term of the license; (4) a discussion of how the needs of the disabled were considered in the planning and design of the fishing access facility; and (5) a schedule to construct the fishing access facility.

The licensee shall prepare the fishing access design and management plan after consultation with the Iowa Department of Natural Resources and the U.S. Army Corps of Engineers. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations prior to filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons based on project-specific information.

The Commission reserves the right to require changes to the plan. The plan shall not be implemented until the licensee is notified that the plan is approved. Upon Commission approval, the licensee shall implement the plan according to the approved schedule, including any changes required by the Commission.

The fishing access facility, built in accordance with this plan, shall be shown on the as-built drawings filed pursuant to Article 304 of this license.

Article 406. Avian Protection Plan. At least 90 days before start of any land-disturbing or land-clearing activities, the licensee shall file with the Commission for approval, an Avian Protection Plan to protect birds from collision hazards and electrocution that may be caused by above-ground portions of the project's transmission

line.

The plan shall include provisions for implementing site-specific practices to reduce the potential for adverse effects on bald eagles and other birds in accordance with the following raptor protection guidelines: (1) *Avian Protection Plan Guidelines: A Joint Document prepared by the Edison Electric Institute's Avian Power Line Interaction Committee (APLIC) and U.S. Fish and Wildlife Service*; (2) *APLIC's Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006*; and (3) *APLIC's Mitigating Bird Collisions with Power Lines: The State of the Art in 1994*, or the most current editions of these documents.

The plan shall be prepared after consultation with the U. S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and Iowa Department of Natural Resources. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the entities, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. The plan shall not be implemented until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 407. Indiana Bat Protection Measures. The licensee shall implement measures to minimize project construction, operation, and maintenance effects on the Indiana bat, including the following:

(1) At least 90 days before the start of project construction, the licensee shall file with the Commission for approval, a report documenting the results of its findings regarding the presence of Indiana bat habitat within the transmission line corridor and documenting consultation with the National Resource Conservation Service (NRCS) on the licensee's findings. If potential Indiana bat habitat exists, the licensee shall include with the report, an Indiana Bat Protection Plan for Commission approval. The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, Iowa Department of Natural Resources, and the NRCS. The licensee shall include with the plan, an implementation schedule, documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons

based on project-specific information. The Commission reserves the right to require changes to the plan. No ground-disturbing or land-clearing activities within the transmission line corridor shall begin until the Commission notifies the licensee that the report, including any associated Indiana Bat Protection Plan, is approved; and

(2) Throughout the license term, limit tree trimming along the transmission line corridor as follows: (a) conduct tree trimming outside of the Indiana bat maternity season (April 1 to September 30) if suitable trees and habitat are present and (b) trim vegetation to only those levels necessary to establish adequate spacing and clearance for access and safety to the transmission line.

Article 408. Cultural Resources Protection. The licensee, prior to starting any land-clearing or land-disturbing activities within the project boundary, other than those specifically authorized by this license order, shall consult with the Iowa State Historic Preservation Office (Iowa SHPO) and the U.S. Army Corps of Engineers (Corps).

If the licensee discovers previously unidentified archeological or historic properties during project construction, operation, or maintenance, or other project-related activities, the licensee shall stop all land-clearing and land-disturbing activities (if any) in the vicinity of the properties and consult with the Iowa SHPO and the Corps to determine the need for any additional cultural resource studies or measures. If no additional studies or measures are needed, the licensee shall file with the Commission documentation of its consultation with the Iowa SHPO and the Corps.

If a discovered cultural resource is determined to be eligible for the National Register of Historic Places (National Register), the licensee shall file for Commission approval an Historic Properties Management Plan (HPMP) prepared by a qualified cultural resource specialist after consultation with the Iowa SHPO and the Corps. In developing the HPMP, the licensee shall use the Advisory Council on Historic Preservation and the Federal Energy Regulatory Commission's *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects*, dated May 20, 2002. The HPMP shall include the following items: (1) a description of each discovered property, indicating whether it is listed in or eligible for listing in the National Register; (2) a description of the potential effect on each discovered property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of consultation; and (5) a schedule for implementing mitigation and conducting additional studies. The Commission reserves the right to require changes to the HPMP.

The licensee shall not begin land-clearing or land-disturbing activities, other than those specifically authorized in this license, or resume such activities in the vicinity of a property discovered during construction, operation, maintenance, or other project-related

activities until informed by the Commission that the requirements of this article have been fulfilled.

Article 409. Use and Occupancy. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction; (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and (3) determine that the proposed construction is needed and would not change the basic contour of the impoundment shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing

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this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project impoundment. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 water craft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

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(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an Exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(F) The licensee shall serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters relating to that filing. Proof of service on these entities must accompany the filing with the Commission.

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(G) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2006), and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2010). The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Jeff C. Wright
Director
Office of Energy Projects

**Form L-2
(October, 1975)**

FEDERAL ENERGY REGULATORY COMMISSION

**TERMS AND CONDITIONS OF LICENSE FOR
UNCONSTRUCTED MAJOR PROJECT AFFECTING
LANDS OF THE UNITED STATES**

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Upon the completion of the project, or at such other time as the Commission may direct, the Licensee shall submit to the Commission for approval revised exhibits insofar

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as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the exhibits approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variation in or divergence from the approved exhibits. Such revised exhibits shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

Article 4. The construction, operation, and maintenance of the project and any work incidental to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project and for any subsequent alterations to the project. Construction of the project works or any features or alteration thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written

approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. In the event the project is taken over by the United States upon the termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a nonpower licensee under the provisions of Section 15 of said Act, the Licensee, its successors and assigns shall be responsible for, and shall make good any defect of title to, or of right of occupancy and use in, any of such project property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: Provided, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

Article 7. The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

Article 8. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the state and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character and locations of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of

funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 9. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 10. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 11. Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

Article 12. The operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Commission may prescribe for the purposes hereinbefore mentioned.

Article 13. On the application of any person, association, corporation, Federal Agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved

and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 14. In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by any other lawful authority for avoiding or eliminating inductive interference.

Article 15. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 16. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article.

This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 17. The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

Article 18. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 19. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 20. The Licensee shall consult with the appropriate State and Federal agencies and, within one year of the date of issuance of this license, shall submit for Commission approval a plan for clearing the reservoir area. Further, the Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. Upon approval of the clearing plan all clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 21. Timber on lands of the United State cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the requirements of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber shall be at current stumpage rates, and payment for young growth timber below merchantable size shall be at current damage appraisal values. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee: Provided, That timber so sold or disposed of shall be cut and removed from the area prior to, or without undue interference with, clearing operations of the Licensee and in coordination with the Licensee's project construction schedules. Such sale or disposal to others shall not relieve the Licensee of responsibility for the clearing and disposal of all slash and debris from project lands.

Article 22. The Licensee shall do everything reasonably within its power, and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned, to prevent, to make advance preparations for suppression of, and to suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and shall pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the works appurtenant or accessory thereto under the license.

Article 23. The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

Article 24. The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, or by reconstruction or repair of damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

Article 25. The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads,

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trails, telephone and power lines, and other routes or means of transportation and communication as are not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

Article 26. In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

Article 27. The Licensee shall make provision, or shall bear the reasonable cost, as determined by the agency of the United States affected, of making provision for avoiding inductive interference between any project transmission line or other project facility constructed, operated, or maintained under the license, and any radio installation, telephone line, or other communication facility installed or constructed before or after construction of such project transmission line or other project facility and owned, operated, or used by such agency of the United States in administering the lands under its jurisdiction.

Article 28. The Licensee shall make use of the Commission's guidelines and other recognized guidelines for treatment of transmission line rights-of-way, and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

Article 29. The Licensee shall cooperate with the United States in the disposal by the United States, under the Act of July 31, 1947, 61 Stat. 681, as amended (30 U.S.C. sec. 601, et seq.), of mineral and vegetative materials from lands of the United States occupied by the project or any part thereof: Provided, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: Provided further, That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice and opportunity for hearing.

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Article 30. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 31. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 32. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

Document Content(s)

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